EXHIBIT 5

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

In Re Google Digital Advertising Antitrust Litigation	Civil Action No. 21-MD-3010 (PKC)

Expert Report of
October 4, 2024

I reserve the right to modify or supplement my opinions as additional information becomes 28. available to me, based on future rulings of the Court, in response to Google's experts, or as I obtain the results of further analysis.

II. The Class

- 29. According to the Complaint, the plaintiff in this matter seek to represent Google Ads advertisers that between January 1, 2016 to the present, ²⁸ placed a display ad on a website or mobile application operated by another entity via a transaction in which the impression was sold, brokered, exchanged or auctioned by Google.²⁹
- Because no class representative plaintiff purchased advertising from Google's DSP, the large 30. advertiser buying tool DV360, Advertiser Plaintiffs bring their claim solely on behalf of advertisers that purchased programmatic digital display advertising from Google Ads, Google's self-service display ad buying tool. Google has estimated that approximately of its DV360 customers also use Google Ads.³⁰ Thus, because many large advertisers also purchased advertising from Google Ads during the Violation Period, an analysis of anticompetitive effects for Google Ads users will include small and large advertisers.
- 31. Google customers who advertise through Google Ads can be small businesses (half of identified advertisers spend less than in total on display advertising during the Violation Period³¹). In contrast, Google's DV360 customers are large advertisers according to Google, "

²⁸ I refer to this period as the "Violation Period" in this report.

²⁹ Consolidated Advertiser Class Action Amended Complaint, (Dkt. 399, filed Dec. 2, 2022) ¶ 339. ("CAC")

In the figure below, I display the win rate for Google customers on AdX over time based on Google's own contemporaneous assessment. The blue line shows the cumulative effect of the various policy changes that Google implemented over time. I also indicate the beginning of the Violation Period associated with the Advertiser Plaintiff's case.



- I have concluded that BS-DRS, Project Bernanke, Global Bernanke and the change to Unified Pricing Rules had a detrimental effect on competition in the relevant antitrust market for self-serve programmatic display advertising. I have not reached a conclusion as to the pro- and anti-competitive effects of the other auction optimizations.
- To show the effect of Bernake and UPR, the dotted red line in the figure below is the Baseline and shows the cumulative effect of the policy changes after removing the effect of Bernanke (various versions) and Unified Pricing Rules policy changes. The difference between the red and blue lines depicts the anticompetitive inflation in Google's AdX volumes.